

Amendments To The Claims:

Please amend the claims as follows.

1 – 38 (Canceled).

39. (Currently Amended) A method for controlling the castability of liquid steel, the method comprising:

selecting ~~[[a]]~~ each pair of alloying elements from the group consisting of Si/O₂, S/O₂, Al/O₂, S/C, and N/C;

for the each pair of alloying elements from the group consisting of Si/O₂, S/O₂, Al/O₂, S/C, and N/C, establishing a first range of relative concentration limits ~~specific to the pair of alloying elements~~ in a melt such that a subsequent casting of the melt is likely to exhibit acceptable mechanical properties;

for the each pair of alloying elements from the group consisting of Si/O₂, S/O₂, Al/O₂, S/C, and N/C, establishing a respective second range of relative concentration limits ~~specific to pair of alloying elements~~ as a subset of the first range of relative concentration limits such that a subsequent casting of the melt is further likely to be castable; and

~~casting the melt while controlling chemistry of the melt to within the second range of relative concentration limits;~~

casting a steel melt comprising the each pair of alloying elements from the group consisting of Si/O₂, S/O₂, Al/O₂, S/C, and N/C having relative concentration limits within the second range of relative concentration limits for the each pair of alloying elements.

40. (Canceled)

41. (Canceled)

42. (Canceled)

43. (Currently amended) The method of claim 39, further comprising:
for the each pair of alloying elements from the group consisting of Si/O₂, S/O₂, Al/O₂, S/C, and N/C, displaying the first range on a graph illustrating concentrations of a first element of the pair along a first axis and concentrations of a respective second element of the pair along a second axis;

for the each pair of alloying elements from the group consisting of Si/O₂, S/O₂, Al/O₂, S/C, and N/C, displaying the respective second range on the graph as a sub-area of the first range; and

for the each pair of alloying elements from the group consisting of Si/O₂, S/O₂, Al/O₂, S/C, and N/C, displaying a measured relative concentration of the first element and the respective second element[[s]] of the pair in the melt as a point on the graph.

44. (Previously presented) The method of claim 39 used in a thin-strip continuous casting machine according to a twin-roller casting process.

45. (Currently amended) The method of claim 39, further comprising ~~easting a steel melt having a measured relative concentration of the selected pair of alloying elements, and treating the steel melt by increasing an amount of a first element from the~~ in a first pair from the group consisting of Si/O₂, S/O₂, Al/O₂, S/C, and N/C if the a measured relative concentration of the selected first pair of alloying elements in the melt falls outside the respective second range.

46. (Canceled)